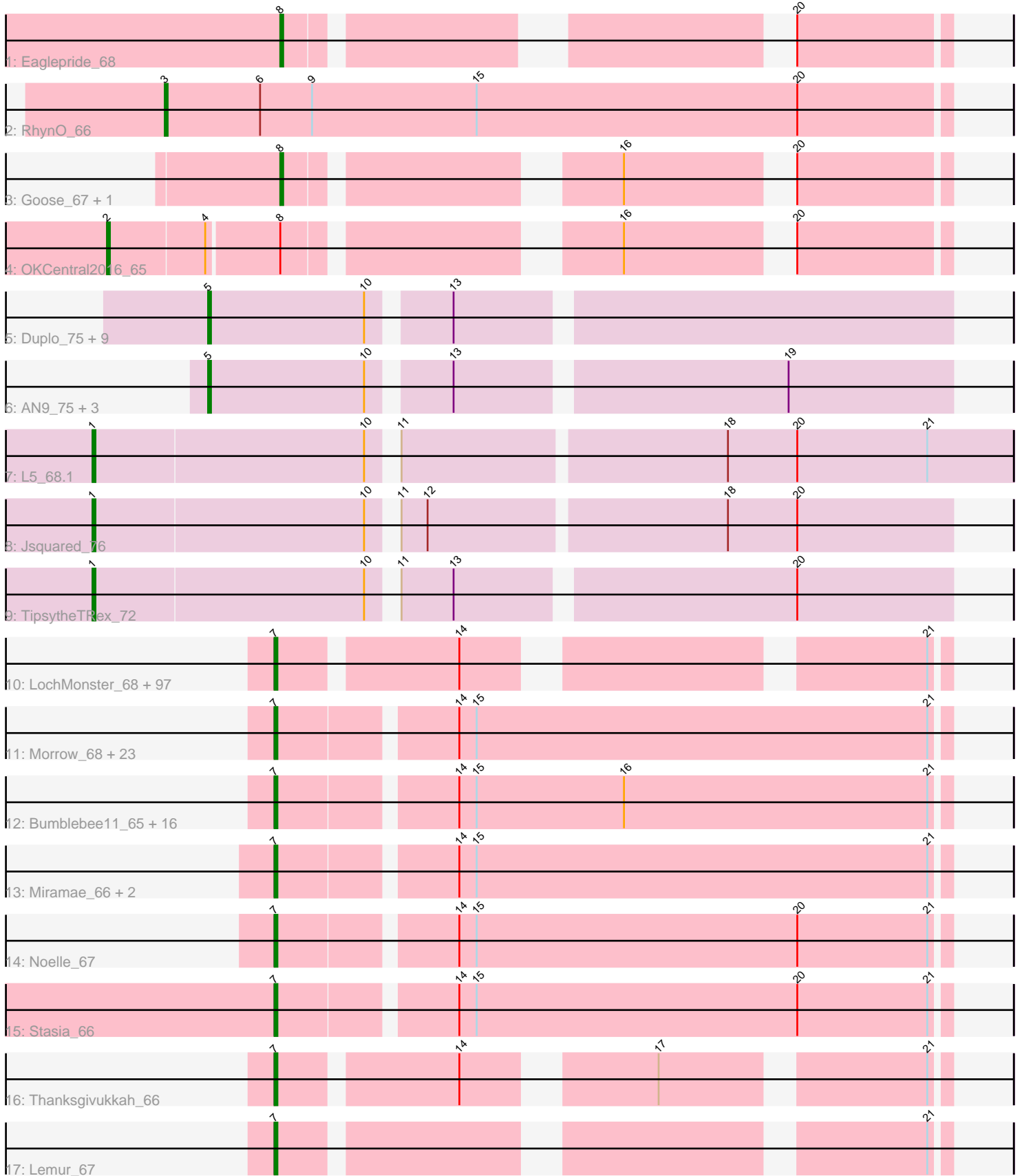


Pham 294475



Note: Tracks are now grouped by subcluster and scaled. Switching in subcluster is indicated by changes in track color. Track scale is now set by default to display the region 30 bp upstream of start 1 to 30 bp downstream of the last possible start. If this default region is judged to be packed too tightly with annotated starts, the track will be further scaled to only show that region of the ORF with annotated starts. This action will be indicated by adding "Zoomed" to the title. For starts, yellow indicates the location of called starts comprised solely of Glimmer/GeneMark auto-annotations, green indicates the location of called starts with at least 1 manual gene annotation.

## Pham 294475 Report

This analysis was run 04/18/26 on database version 643.

Pham number 294475 has 168 members, 6 are drafts.

Phages represented in each track:

- Track 1 : Eaglepride\_68
- Track 2 : RhynO\_66
- Track 3 : Goose\_67, Chupacabra\_64
- Track 4 : OKCentral2016\_65
- Track 5 : Duplo\_75, Kerberos\_75, DBQu4n\_75, D29\_68.1, D32\_74, Pomar16\_75, Travvers\_74, StarStuff\_75, Tomathan\_75, Naji\_75
- Track 6 : AN9\_75, VC3\_74, ANI8\_75, C3\_68
- Track 7 : L5\_68.1
- Track 8 : Jsquared\_76
- Track 9 : TipsytheTRex\_72
- Track 10 : LochMonster\_68, Kingmustik0402\_67, Lunsford\_67, Maverick\_66, Eris\_66, Phontbonne\_67, Kampy\_66, Skipitt\_66, Spino\_66, Phacado\_67, Funston\_66, Sparxx\_68, Blackmoor\_66, OKaNui\_66, Eros\_67, Romney\_66, Sabertooth\_67, Iracema64\_67, DirtyDunning\_66, Clarenza\_66, Houdini22\_66, Shaka\_65, PeterPeter\_67, Huxley\_64, Avle17\_67, Iceman\_66, KekoraPapaka\_64, SenorClean\_68, Melvin\_69, Koan\_64, Mazhar510\_67, JoongJeon\_66, Peaches\_65, Burger\_65, NorthStar\_65, Mayonnaise\_64, HamSlice\_63, Maxo\_68, Pumbaa\_67, Millski\_66, Jaykayelowell\_64, Eapen\_67, Deano\_64, Alberto7\_68, Taquarus\_66, Bruiser\_66, Roosevelt\_65, Arturo\_64, Kyee\_67, TinaFeyge\_65, KFPoly\_66, Broseidon\_67, Abdiel\_67, Connomayer\_67, Palestino\_66, Nyxis\_66, Ruin\_67, Commander\_65, Bartimeaus\_67, Flux\_67, SteMason\_63, Koreni\_66, Cocoaberry\_67, Lorenzo\_67, Florean\_67, Scamp\_67, Nemo27\_66, Camperdownii\_65, Medusa\_67, Gadost\_67, YoSam321\_67, Bombshell\_67, LittleB\_67, NotAPhaseMom\_66, Dhanush\_67, Pipcraft\_64, Relief\_66, Ulysses\_66, Phighter1804\_67, Sultana\_67, Druantia\_66, Wilbur\_67, Chaph\_67, Annyong\_66, Wander\_67, Holli\_66, LittleGuy\_67, TygerBlood\_67, Albee\_67, MeeZee\_66, Citius\_67, Baby16\_67, RockieBear\_64, Rosa24\_64, TiroTheta9\_66, Tinybot\_66, LappelDuVide\_67, Caelakin\_66
- Track 11 : Morrow\_68, BellusTerra\_68, LeoAvram\_66, Eagle\_66, Cerulean\_68, Kremtemulon\_66, Shygu2\_66, Ohfah\_68, Happiness\_66, Kratark\_66, TroyPia\_68, ChampagnePapi\_69, BangNhom\_65, Cintron\_67, Obama12\_68, Eurydice\_68, LHTSCC\_69, Phelipe\_68, JetBlade\_67, Polymorphads\_67, SheldonCooper\_67, ICleared\_66, Nebs\_68, CentreCat\_67
- Track 12 : Bumblebee11\_65, Katalie136\_66, Achebe\_65, AbbysRanger\_66, Cici\_66, Datway\_66, BubbleTrouble\_66, Perplexer\_66, Backyardigan\_64, Wizard007\_66, Mundrea\_66, Xena\_65, PetiteSangsue\_66, Cindaradix\_63, Morpher26\_66, Wile\_65, Badger\_65

- Track 13 : Miramae\_66, AvatarAhPeg\_66, Stink\_66
- Track 14 : Noelle\_67
- Track 15 : Stasia\_66
- Track 16 : Thanksgivukkah\_66
- Track 17 : Lemur\_67

**Summary of Final Annotations (See graph section above for start numbers):**

The start number called the most often in the published annotations is 7, it was called in 141 of the 162 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- AbbysRanger\_66, Abdiel\_67, Achebe\_65, Albee\_67, Alberto7\_68, Annyong\_66, Arturo\_64, AvatarAhPeg\_66, Avle17\_67, Baby16\_67, Backyardigan\_64, Badger\_65, BangNhom\_65, Bartimeaus\_67, BellusTerra\_68, Blackmoor\_66, Bombshell\_67, Broseidon\_67, Bruiser\_66, BubbleTrouble\_66, Bumblebee11\_65, Burger\_65, Caelakin\_66, Camperdownii\_65, CentreCat\_67, Cerulean\_68, ChampagnePapi\_69, Chaph\_67, Cici\_66, Cindaradix\_63, Cintron\_67, Citius\_67, Clarenza\_66, Cocoaberry\_67, Commander\_65, Connomayer\_67, Datway\_66, Deano\_64, Dhanush\_67, DirtyDunning\_66, Druantia\_66, Eagle\_66, Eapen\_67, Eris\_66, Eros\_67, Eurydice\_68, Florean\_67, Flux\_67, Funston\_66, Gadost\_67, HamSlice\_63, Happiness\_66, Holli\_66, Houdini22\_66, Huxley\_64, ICleared\_66, Iceman\_66, Iracema64\_67, Jaykayelowell\_64, JetBlade\_67, JoongJeon\_66, KFPoly\_66, Kampy\_66, Katalie136\_66, KekoraPapaka\_64, Kingmustik0402\_67, Koan\_64, Koreni\_66, Kratark\_66, Kremtemulon\_66, Kyee\_67, LHTSCC\_69, LappelDuVide\_67, Lemur\_67, LeoAvram\_66, LittleB\_67, LittleGuy\_67, LochMonster\_68, Lorenzo\_67, Lunsford\_67, Maverick\_66, Maxo\_68, Mayonnaise\_64, Mazhar510\_67, Medusa\_67, MeeZee\_66, Melvin\_69, Millski\_66, Miramae\_66, Morpher26\_66, Morrow\_68, Mundrea\_66, Nebs\_68, Nemo27\_66, Noelle\_67, NorthStar\_65, NotAPhaseMom\_66, Nyxis\_66, OKaNui\_66, Obama12\_68, Ohfah\_68, Palestino\_66, Peaches\_65, Perplexer\_66, PeterPeter\_67, PetiteSangsue\_66, Phacado\_67, Phelipe\_68, Phighter1804\_67, Phontbonne\_67, Pipcraft\_64, Polymorphads\_67, Pumbaa\_67, Relief\_66, RockieBear\_64, Romney\_66, Roosevelt\_65, Rosa24\_64, Ruin\_67, Sabertooth\_67, Scamp\_67, SeniorClean\_68, Shaka\_65, SheldonCooper\_67, Shygu2\_66, Skipitt\_66, Sparxx\_68, Spino\_66, Stasia\_66, SteMason\_63, Stink\_66, Sultana\_67, Taquarus\_66, Thanksgivukkah\_66, TinaFeyge\_65, Tinybot\_66, TiroTheta9\_66, TroyPia\_68, TygerBlood\_67, Ulysses\_66, Wander\_67, Wilbur\_67, Wile\_65, Wizard007\_66, Xena\_65, YoSam321\_67,

Genes that have the "Most Annotated" start but do not call it:

- 

Genes that do not have the "Most Annotated" start:

- AN9\_75, ANI8\_75, C3\_68, Chupacabra\_64, D29\_68.1, D32\_74, DBQu4n\_75, Duplo\_75, Eaglepride\_68, Goose\_67, Jsquared\_76, Kerberos\_75, L5\_68.1, Naji\_75, OKCentral2016\_65, Pomar16\_75, RhynO\_66, StarStuff\_75, TipsytheTRex\_72, Tomathan\_75, Travvers\_74, VC3\_74,

**Summary by start number:**

Start 1:

- Found in 3 of 168 ( 1.8% ) of genes in pham
- Manual Annotations of this start: 3 of 162
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Jsquared\_76 (A2), L5\_68.1 (A2), TipsytheTRex\_72 (A2),

Start 2:

- Found in 1 of 168 ( 0.6% ) of genes in pham
- Manual Annotations of this start: 1 of 162
- Called 100.0% of time when present
- Phage (with cluster) where this start called: OKCentral2016\_65 (A10),

Start 3:

- Found in 1 of 168 ( 0.6% ) of genes in pham
- Manual Annotations of this start: 1 of 162
- Called 100.0% of time when present
- Phage (with cluster) where this start called: RhynO\_66 (A10),

Start 5:

- Found in 14 of 168 ( 8.3% ) of genes in pham
- Manual Annotations of this start: 13 of 162
- Called 100.0% of time when present
- Phage (with cluster) where this start called: AN9\_75 (A2), ANI8\_75 (A2), C3\_68 (A2), D29\_68.1 (A2), D32\_74 (A2), DBQu4n\_75 (A2), Duplo\_75 (A2), Kerberos\_75 (A2), Naji\_75 (A2), Pomar16\_75 (A2), StarStuff\_75 (A2), Tomathan\_75 (A2), Travvers\_74 (A2), VC3\_74 (A2),

Start 7:

- Found in 146 of 168 ( 86.9% ) of genes in pham
- Manual Annotations of this start: 141 of 162
- Called 100.0% of time when present
- Phage (with cluster) where this start called: AbbysRanger\_66 (A4), Abdiel\_67 (A4), Achebe\_65 (A4), Albee\_67 (A4), Alberto7\_68 (A4), Annyong\_66 (A4), Arturo\_64 (A4), AvatarAhPeg\_66 (A4), Avle17\_67 (A4), Baby16\_67 (A4), Backyardigan\_64 (A4), Badger\_65 (A4), BangNhom\_65 (A4), Bartimeaus\_67 (A4), BellusTerra\_68 (A4), Blackmoor\_66 (A4), Bombshell\_67 (A4), Broseidon\_67 (A4), Bruiser\_66 (A4), BubbleTrouble\_66 (A4), Bumblebee11\_65 (A4), Burger\_65 (A4), Caelakin\_66 (A4), Camperdownii\_65 (A4), CentreCat\_67 (A4), Cerulean\_68 (A4), ChampagnePapi\_69 (A4), Chaph\_67 (A4), Cici\_66 (A4), Cindaradix\_63 (A4), Cintron\_67 (A4), Citius\_67 (A4), Clarenza\_66 (A4), Cocoaberry\_67 (A4), Commander\_65 (A4), Connomayer\_67 (A4), Datway\_66 (A4), Deano\_64 (A4), Dhanush\_67 (A4), DirtyDunning\_66 (A4), Druantia\_66 (A4), Eagle\_66 (A4), Eapen\_67 (A4), Eris\_66 (A4), Eros\_67 (A4), Eurydice\_68 (A4), Florean\_67 (A4), Flux\_67 (A4), Funston\_66 (A4), Gadost\_67 (A4), HamSlice\_63 (A4), Happiness\_66 (A4), Holli\_66 (A4), Houdini22\_66 (A4), Huxley\_64 (A4), ICleared\_66 (A4), Iceman\_66 (A4), Iracema64\_67 (A4), Jaykayelowell\_64 (A4), JetBlade\_67 (A4), JoongJeon\_66 (A4), KFPoly\_66 (A4), Kamy\_66 (A4), Katalie136\_66 (A4), KekoraPapaka\_64 (A4), Kingmustik0402\_67 (A4), Koan\_64 (A4), Koreni\_66 (A4), Kratak\_66 (A4), Kremtemulon\_66 (A4), Kyee\_67 (A4), LHTSCC\_69 (A4), LappelDuVide\_67 (A4), Lemur\_67 (A4), LeoAvram\_66 (A4), LittleB\_67 (A4), LittleGuy\_67 (A4), LochMonster\_68 (A4), Lorenzo\_67 (A4), Lunsford\_67 (A4), Maverick\_66 (A4), Maxo\_68 (A4), Mayonnaise\_64 (A4), Mazhar510\_67 (A4), Medusa\_67 (A4), MeeZee\_66 (A4), Melvin\_69 (A4), Millski\_66 (A4), Miramae\_66

(A4), Morpher26\_66 (A4), Morrow\_68 (A4), Mundrea\_66 (A4), Nebs\_68 (A4), Nemo27\_66 (A4), Noelle\_67 (A4), NorthStar\_65 (A4), NotAPhaseMom\_66 (A4), Nyxis\_66 (A4), OKaNui\_66 (A4), Obama12\_68 (A4), Ohfah\_68 (A4), Palestino\_66 (A4), Peaches\_65 (A4), Perplexer\_66 (A4), PeterPeter\_67 (A4), PetiteSangsue\_66 (A4), Phacado\_67 (A4), Phelipe\_68 (A4), Phighter1804\_67 (A4), Phontbonne\_67 (A4), Pipcraft\_64 (A4), Polymorphads\_67 (A4), Pumbaa\_67 (A4), Relief\_66 (A4), RockieBear\_64 (A4), Romney\_66 (A4), Roosevelt\_65 (A4), Rosa24\_64 (A4), Ruin\_67 (A4), Sabertooth\_67 (A4), Scamp\_67 (A4), SenorClean\_68 (A4), Shaka\_65 (A4), SheldonCooper\_67 (A4), Shygu2\_66 (A4), Skipitt\_66 (A4), Sparxx\_68 (A4), Spino\_66 (A4), Stasia\_66 (A4), SteMason\_63 (A4), Stink\_66 (A4), Sultana\_67 (A4), Taquarus\_66 (A4), Thanksgivukkah\_66 (A4), TinaFeyge\_65 (A4), Tinybot\_66 (A4), TiroTheta9\_66 (A4), TroyPia\_68 (A4), TygerBlood\_67 (A4), Ulysses\_66 (A4), Wander\_67 (A4), Wilbur\_67 (A4), Wile\_65 (A4), Wizard007\_66 (A4), Xena\_65 (A4), YoSam321\_67 (A4),

Start 8:

- Found in 4 of 168 ( 2.4% ) of genes in pham
- Manual Annotations of this start: 3 of 162
- Called 75.0% of time when present
- Phage (with cluster) where this start called: Chupacabra\_64 (A10), Eaglepride\_68 (A10), Goose\_67 (A10),

### **Summary by clusters:**

There are 3 clusters represented in this pham: A2, A4, A10,

Info for manual annotations of cluster A10:

- Start number 2 was manually annotated 1 time for cluster A10.
- Start number 3 was manually annotated 1 time for cluster A10.
- Start number 8 was manually annotated 3 times for cluster A10.

Info for manual annotations of cluster A2:

- Start number 1 was manually annotated 3 times for cluster A2.
- Start number 5 was manually annotated 13 times for cluster A2.

Info for manual annotations of cluster A4:

- Start number 7 was manually annotated 141 times for cluster A4.

### **Gene Information:**

Gene: AN9\_75 Start: 43459, Stop: 43217, Start Num: 5

Candidate Starts for AN9\_75:

(Start: 5 @43459 has 13 MA's), (10, 43405), (13, 43381), (19, 43273),

Gene: ANI8\_75 Start: 43459, Stop: 43217, Start Num: 5

Candidate Starts for ANI8\_75:

(Start: 5 @43459 has 13 MA's), (10, 43405), (13, 43381), (19, 43273),

Gene: AbbysRanger\_66 Start: 42647, Stop: 42423, Start Num: 7

Candidate Starts for AbbysRanger\_66:

(Start: 7 @42647 has 141 MA's), (14, 42590), (15, 42584), (16, 42533), (21, 42428),

Gene: Abdiel\_67 Start: 42370, Stop: 42173, Start Num: 7  
Candidate Starts for Abdiel\_67:  
(Start: 7 @42370 has 141 MA's), (14, 42313), (21, 42178),

Gene: Achebe\_65 Start: 42630, Stop: 42406, Start Num: 7  
Candidate Starts for Achebe\_65:  
(Start: 7 @42630 has 141 MA's), (14, 42573), (15, 42567), (16, 42516), (21, 42411),

Gene: Albee\_67 Start: 42357, Stop: 42160, Start Num: 7  
Candidate Starts for Albee\_67:  
(Start: 7 @42357 has 141 MA's), (14, 42300), (21, 42165),

Gene: Alberto7\_68 Start: 42694, Stop: 42497, Start Num: 7  
Candidate Starts for Alberto7\_68:  
(Start: 7 @42694 has 141 MA's), (14, 42637), (21, 42502),

Gene: Annyong\_66 Start: 42402, Stop: 42205, Start Num: 7  
Candidate Starts for Annyong\_66:  
(Start: 7 @42402 has 141 MA's), (14, 42345), (21, 42210),

Gene: Arturo\_64 Start: 42484, Stop: 42287, Start Num: 7  
Candidate Starts for Arturo\_64:  
(Start: 7 @42484 has 141 MA's), (14, 42427), (21, 42292),

Gene: AvatarAhPeg\_66 Start: 42517, Stop: 42293, Start Num: 7  
Candidate Starts for AvatarAhPeg\_66:  
(Start: 7 @42517 has 141 MA's), (14, 42460), (15, 42454), (21, 42298),

Gene: Avle17\_67 Start: 42354, Stop: 42157, Start Num: 7  
Candidate Starts for Avle17\_67:  
(Start: 7 @42354 has 141 MA's), (14, 42297), (21, 42162),

Gene: Baby16\_67 Start: 42368, Stop: 42171, Start Num: 7  
Candidate Starts for Baby16\_67:  
(Start: 7 @42368 has 141 MA's), (14, 42311), (21, 42176),

Gene: Backyardigan\_64 Start: 42663, Stop: 42439, Start Num: 7  
Candidate Starts for Backyardigan\_64:  
(Start: 7 @42663 has 141 MA's), (14, 42606), (15, 42600), (16, 42549), (21, 42444),

Gene: Badger\_65 Start: 42631, Stop: 42407, Start Num: 7  
Candidate Starts for Badger\_65:  
(Start: 7 @42631 has 141 MA's), (14, 42574), (15, 42568), (16, 42517), (21, 42412),

Gene: BangNhom\_65 Start: 42796, Stop: 42572, Start Num: 7  
Candidate Starts for BangNhom\_65:  
(Start: 7 @42796 has 141 MA's), (14, 42739), (15, 42733), (21, 42577),

Gene: Bartimeaus\_67 Start: 42359, Stop: 42162, Start Num: 7  
Candidate Starts for Bartimeaus\_67:  
(Start: 7 @42359 has 141 MA's), (14, 42302), (21, 42167),

Gene: BellusTerra\_68 Start: 42397, Stop: 42173, Start Num: 7  
Candidate Starts for BellusTerra\_68:  
(Start: 7 @42397 has 141 MA's), (14, 42340), (15, 42334), (21, 42178),

Gene: Blackmoor\_66 Start: 42359, Stop: 42162, Start Num: 7  
Candidate Starts for Blackmoor\_66:  
(Start: 7 @42359 has 141 MA's), (14, 42302), (21, 42167),

Gene: Bombshell\_67 Start: 42354, Stop: 42157, Start Num: 7  
Candidate Starts for Bombshell\_67:  
(Start: 7 @42354 has 141 MA's), (14, 42297), (21, 42162),

Gene: Broseidon\_67 Start: 42359, Stop: 42162, Start Num: 7  
Candidate Starts for Broseidon\_67:  
(Start: 7 @42359 has 141 MA's), (14, 42302), (21, 42167),

Gene: Bruiser\_66 Start: 42357, Stop: 42160, Start Num: 7  
Candidate Starts for Bruiser\_66:  
(Start: 7 @42357 has 141 MA's), (14, 42300), (21, 42165),

Gene: BubbleTrouble\_66 Start: 42384, Stop: 42160, Start Num: 7  
Candidate Starts for BubbleTrouble\_66:  
(Start: 7 @42384 has 141 MA's), (14, 42327), (15, 42321), (16, 42270), (21, 42165),

Gene: Bumblebee11\_65 Start: 42633, Stop: 42409, Start Num: 7  
Candidate Starts for Bumblebee11\_65:  
(Start: 7 @42633 has 141 MA's), (14, 42576), (15, 42570), (16, 42519), (21, 42414),

Gene: Burger\_65 Start: 42357, Stop: 42160, Start Num: 7  
Candidate Starts for Burger\_65:  
(Start: 7 @42357 has 141 MA's), (14, 42300), (21, 42165),

Gene: C3\_68 Start: 43459, Stop: 43217, Start Num: 5  
Candidate Starts for C3\_68:  
(Start: 5 @43459 has 13 MA's), (10, 43405), (13, 43381), (19, 43273),

Gene: Caelakin\_66 Start: 42357, Stop: 42160, Start Num: 7  
Candidate Starts for Caelakin\_66:  
(Start: 7 @42357 has 141 MA's), (14, 42300), (21, 42165),

Gene: Camperdownii\_65 Start: 42031, Stop: 41834, Start Num: 7  
Candidate Starts for Camperdownii\_65:  
(Start: 7 @42031 has 141 MA's), (14, 41974), (21, 41839),

Gene: CentreCat\_67 Start: 42396, Stop: 42172, Start Num: 7  
Candidate Starts for CentreCat\_67:  
(Start: 7 @42396 has 141 MA's), (14, 42339), (15, 42333), (21, 42177),

Gene: Cerulean\_68 Start: 42797, Stop: 42573, Start Num: 7  
Candidate Starts for Cerulean\_68:  
(Start: 7 @42797 has 141 MA's), (14, 42740), (15, 42734), (21, 42578),

Gene: ChampagnePapi\_69 Start: 42796, Stop: 42572, Start Num: 7

Candidate Starts for ChampagnePapi\_69:  
(Start: 7 @42796 has 141 MA's), (14, 42739), (15, 42733), (21, 42577),

Gene: Chaph\_67 Start: 42368, Stop: 42171, Start Num: 7  
Candidate Starts for Chaph\_67:  
(Start: 7 @42368 has 141 MA's), (14, 42311), (21, 42176),

Gene: Chupacabra\_64 Start: 41694, Stop: 41500, Start Num: 8  
Candidate Starts for Chupacabra\_64:  
(Start: 8 @41694 has 3 MA's), (16, 41598), (20, 41550),

Gene: Cici\_66 Start: 42648, Stop: 42424, Start Num: 7  
Candidate Starts for Cici\_66:  
(Start: 7 @42648 has 141 MA's), (14, 42591), (15, 42585), (16, 42534), (21, 42429),

Gene: Cindaradix\_63 Start: 42259, Stop: 42035, Start Num: 7  
Candidate Starts for Cindaradix\_63:  
(Start: 7 @42259 has 141 MA's), (14, 42202), (15, 42196), (16, 42145), (21, 42040),

Gene: Cintron\_67 Start: 42507, Stop: 42283, Start Num: 7  
Candidate Starts for Cintron\_67:  
(Start: 7 @42507 has 141 MA's), (14, 42450), (15, 42444), (21, 42288),

Gene: Citius\_67 Start: 42378, Stop: 42181, Start Num: 7  
Candidate Starts for Citius\_67:  
(Start: 7 @42378 has 141 MA's), (14, 42321), (21, 42186),

Gene: Clarenza\_66 Start: 42354, Stop: 42157, Start Num: 7  
Candidate Starts for Clarenza\_66:  
(Start: 7 @42354 has 141 MA's), (14, 42297), (21, 42162),

Gene: Cocoaberry\_67 Start: 42361, Stop: 42164, Start Num: 7  
Candidate Starts for Cocoaberry\_67:  
(Start: 7 @42361 has 141 MA's), (14, 42304), (21, 42169),

Gene: Commander\_65 Start: 42356, Stop: 42159, Start Num: 7  
Candidate Starts for Commander\_65:  
(Start: 7 @42356 has 141 MA's), (14, 42299), (21, 42164),

Gene: Connomayer\_67 Start: 42357, Stop: 42160, Start Num: 7  
Candidate Starts for Connomayer\_67:  
(Start: 7 @42357 has 141 MA's), (14, 42300), (21, 42165),

Gene: D29\_68.1 Start: 44004, Stop: 43762, Start Num: 5  
Candidate Starts for D29\_68.1:  
(Start: 5 @44004 has 13 MA's), (10, 43950), (13, 43926),

Gene: D32\_74 Start: 44004, Stop: 43762, Start Num: 5  
Candidate Starts for D32\_74:  
(Start: 5 @44004 has 13 MA's), (10, 43950), (13, 43926),

Gene: DBQu4n\_75 Start: 43984, Stop: 43742, Start Num: 5  
Candidate Starts for DBQu4n\_75:

(Start: 5 @43984 has 13 MA's), (10, 43930), (13, 43906),

Gene: Datway\_66 Start: 42619, Stop: 42395, Start Num: 7

Candidate Starts for Datway\_66:

(Start: 7 @42619 has 141 MA's), (14, 42562), (15, 42556), (16, 42505), (21, 42400),

Gene: Deano\_64 Start: 42365, Stop: 42168, Start Num: 7

Candidate Starts for Deano\_64:

(Start: 7 @42365 has 141 MA's), (14, 42308), (21, 42173),

Gene: Dhanush\_67 Start: 42360, Stop: 42163, Start Num: 7

Candidate Starts for Dhanush\_67:

(Start: 7 @42360 has 141 MA's), (14, 42303), (21, 42168),

Gene: DirtyDunning\_66 Start: 42372, Stop: 42175, Start Num: 7

Candidate Starts for DirtyDunning\_66:

(Start: 7 @42372 has 141 MA's), (14, 42315), (21, 42180),

Gene: Druantia\_66 Start: 42360, Stop: 42163, Start Num: 7

Candidate Starts for Druantia\_66:

(Start: 7 @42360 has 141 MA's), (14, 42303), (21, 42168),

Gene: Duplo\_75 Start: 44041, Stop: 43799, Start Num: 5

Candidate Starts for Duplo\_75:

(Start: 5 @44041 has 13 MA's), (10, 43987), (13, 43963),

Gene: Eagle\_66 Start: 42418, Stop: 42194, Start Num: 7

Candidate Starts for Eagle\_66:

(Start: 7 @42418 has 141 MA's), (14, 42361), (15, 42355), (21, 42199),

Gene: Eaglepride\_68 Start: 41798, Stop: 41607, Start Num: 8

Candidate Starts for Eaglepride\_68:

(Start: 8 @41798 has 3 MA's), (20, 41657),

Gene: Eapen\_67 Start: 42352, Stop: 42155, Start Num: 7

Candidate Starts for Eapen\_67:

(Start: 7 @42352 has 141 MA's), (14, 42295), (21, 42160),

Gene: Eris\_66 Start: 42372, Stop: 42175, Start Num: 7

Candidate Starts for Eris\_66:

(Start: 7 @42372 has 141 MA's), (14, 42315), (21, 42180),

Gene: Eros\_67 Start: 42359, Stop: 42162, Start Num: 7

Candidate Starts for Eros\_67:

(Start: 7 @42359 has 141 MA's), (14, 42302), (21, 42167),

Gene: Eurydice\_68 Start: 42393, Stop: 42169, Start Num: 7

Candidate Starts for Eurydice\_68:

(Start: 7 @42393 has 141 MA's), (14, 42336), (15, 42330), (21, 42174),

Gene: Florean\_67 Start: 42356, Stop: 42159, Start Num: 7

Candidate Starts for Florean\_67:

(Start: 7 @42356 has 141 MA's), (14, 42299), (21, 42164),

Gene: Flux\_67 Start: 42356, Stop: 42159, Start Num: 7

Candidate Starts for Flux\_67:

(Start: 7 @42356 has 141 MA's), (14, 42299), (21, 42164),

Gene: Funston\_66 Start: 42357, Stop: 42160, Start Num: 7

Candidate Starts for Funston\_66:

(Start: 7 @42357 has 141 MA's), (14, 42300), (21, 42165),

Gene: Gadost\_67 Start: 42361, Stop: 42164, Start Num: 7

Candidate Starts for Gadost\_67:

(Start: 7 @42361 has 141 MA's), (14, 42304), (21, 42169),

Gene: Goose\_67 Start: 41510, Stop: 41316, Start Num: 8

Candidate Starts for Goose\_67:

(Start: 8 @41510 has 3 MA's), (16, 41414), (20, 41366),

Gene: HamSlice\_63 Start: 42355, Stop: 42158, Start Num: 7

Candidate Starts for HamSlice\_63:

(Start: 7 @42355 has 141 MA's), (14, 42298), (21, 42163),

Gene: Happiness\_66 Start: 42379, Stop: 42155, Start Num: 7

Candidate Starts for Happiness\_66:

(Start: 7 @42379 has 141 MA's), (14, 42322), (15, 42316), (21, 42160),

Gene: Holli\_66 Start: 42147, Stop: 41950, Start Num: 7

Candidate Starts for Holli\_66:

(Start: 7 @42147 has 141 MA's), (14, 42090), (21, 41955),

Gene: Houdini22\_66 Start: 42361, Stop: 42164, Start Num: 7

Candidate Starts for Houdini22\_66:

(Start: 7 @42361 has 141 MA's), (14, 42304), (21, 42169),

Gene: Huxley\_64 Start: 42421, Stop: 42224, Start Num: 7

Candidate Starts for Huxley\_64:

(Start: 7 @42421 has 141 MA's), (14, 42364), (21, 42229),

Gene: ICleared\_66 Start: 42425, Stop: 42201, Start Num: 7

Candidate Starts for ICleared\_66:

(Start: 7 @42425 has 141 MA's), (14, 42368), (15, 42362), (21, 42206),

Gene: Iceman\_66 Start: 42646, Stop: 42449, Start Num: 7

Candidate Starts for Iceman\_66:

(Start: 7 @42646 has 141 MA's), (14, 42589), (21, 42454),

Gene: Iracema64\_67 Start: 42624, Stop: 42427, Start Num: 7

Candidate Starts for Iracema64\_67:

(Start: 7 @42624 has 141 MA's), (14, 42567), (21, 42432),

Gene: Jaykayelowell\_64 Start: 42350, Stop: 42153, Start Num: 7

Candidate Starts for Jaykayelowell\_64:

(Start: 7 @42350 has 141 MA's), (14, 42293), (21, 42158),

Gene: JetBlade\_67 Start: 42387, Stop: 42163, Start Num: 7  
Candidate Starts for JetBlade\_67:  
(Start: 7 @42387 has 141 MA's), (14, 42330), (15, 42324), (21, 42168),

Gene: JoongJeon\_66 Start: 42354, Stop: 42157, Start Num: 7  
Candidate Starts for JoongJeon\_66:  
(Start: 7 @42354 has 141 MA's), (14, 42297), (21, 42162),

Gene: Jsquared\_76 Start: 43035, Stop: 42751, Start Num: 1  
Candidate Starts for Jsquared\_76:  
(Start: 1 @43035 has 3 MA's), (10, 42942), (11, 42936), (12, 42927), (18, 42828), (20, 42804),

Gene: KFPoly\_66 Start: 42351, Stop: 42154, Start Num: 7  
Candidate Starts for KFPoly\_66:  
(Start: 7 @42351 has 141 MA's), (14, 42294), (21, 42159),

Gene: Kamy\_66 Start: 42359, Stop: 42162, Start Num: 7  
Candidate Starts for Kamy\_66:  
(Start: 7 @42359 has 141 MA's), (14, 42302), (21, 42167),

Gene: Katalie136\_66 Start: 42633, Stop: 42409, Start Num: 7  
Candidate Starts for Katalie136\_66:  
(Start: 7 @42633 has 141 MA's), (14, 42576), (15, 42570), (16, 42519), (21, 42414),

Gene: KekoraPapaka\_64 Start: 42357, Stop: 42160, Start Num: 7  
Candidate Starts for KekoraPapaka\_64:  
(Start: 7 @42357 has 141 MA's), (14, 42300), (21, 42165),

Gene: Kerberos\_75 Start: 44003, Stop: 43761, Start Num: 5  
Candidate Starts for Kerberos\_75:  
(Start: 5 @44003 has 13 MA's), (10, 43949), (13, 43925),

Gene: Kingmustik0402\_67 Start: 42346, Stop: 42149, Start Num: 7  
Candidate Starts for Kingmustik0402\_67:  
(Start: 7 @42346 has 141 MA's), (14, 42289), (21, 42154),

Gene: Koan\_64 Start: 42357, Stop: 42160, Start Num: 7  
Candidate Starts for Koan\_64:  
(Start: 7 @42357 has 141 MA's), (14, 42300), (21, 42165),

Gene: Koreni\_66 Start: 42038, Stop: 41841, Start Num: 7  
Candidate Starts for Koreni\_66:  
(Start: 7 @42038 has 141 MA's), (14, 41981), (21, 41846),

Gene: Kratak\_66 Start: 42394, Stop: 42170, Start Num: 7  
Candidate Starts for Kratak\_66:  
(Start: 7 @42394 has 141 MA's), (14, 42337), (15, 42331), (21, 42175),

Gene: Kremtemulon\_66 Start: 42490, Stop: 42266, Start Num: 7  
Candidate Starts for Kremtemulon\_66:  
(Start: 7 @42490 has 141 MA's), (14, 42433), (15, 42427), (21, 42271),

Gene: Kyee\_67 Start: 42355, Stop: 42158, Start Num: 7

Candidate Starts for Kyee\_67:  
(Start: 7 @42355 has 141 MA's), (14, 42298), (21, 42163),

Gene: L5\_68.1 Start: 42962, Stop: 42657, Start Num: 1  
Candidate Starts for L5\_68.1:  
(Start: 1 @42962 has 3 MA's), (10, 42869), (11, 42863), (18, 42755), (20, 42731), (21, 42686),

Gene: LHTSCC\_69 Start: 42796, Stop: 42572, Start Num: 7  
Candidate Starts for LHTSCC\_69:  
(Start: 7 @42796 has 141 MA's), (14, 42739), (15, 42733), (21, 42577),

Gene: LappelDuVide\_67 Start: 42356, Stop: 42159, Start Num: 7  
Candidate Starts for LappelDuVide\_67:  
(Start: 7 @42356 has 141 MA's), (14, 42299), (21, 42164),

Gene: Lemur\_67 Start: 42354, Stop: 42157, Start Num: 7  
Candidate Starts for Lemur\_67:  
(Start: 7 @42354 has 141 MA's), (21, 42162),

Gene: LeoAvram\_66 Start: 42387, Stop: 42163, Start Num: 7  
Candidate Starts for LeoAvram\_66:  
(Start: 7 @42387 has 141 MA's), (14, 42330), (15, 42324), (21, 42168),

Gene: LittleB\_67 Start: 42358, Stop: 42161, Start Num: 7  
Candidate Starts for LittleB\_67:  
(Start: 7 @42358 has 141 MA's), (14, 42301), (21, 42166),

Gene: LittleGuy\_67 Start: 42253, Stop: 42056, Start Num: 7  
Candidate Starts for LittleGuy\_67:  
(Start: 7 @42253 has 141 MA's), (14, 42196), (21, 42061),

Gene: LochMonster\_68 Start: 42596, Stop: 42399, Start Num: 7  
Candidate Starts for LochMonster\_68:  
(Start: 7 @42596 has 141 MA's), (14, 42539), (21, 42404),

Gene: Lorenzo\_67 Start: 42357, Stop: 42160, Start Num: 7  
Candidate Starts for Lorenzo\_67:  
(Start: 7 @42357 has 141 MA's), (14, 42300), (21, 42165),

Gene: Lunsford\_67 Start: 42351, Stop: 42154, Start Num: 7  
Candidate Starts for Lunsford\_67:  
(Start: 7 @42351 has 141 MA's), (14, 42294), (21, 42159),

Gene: Maverick\_66 Start: 42357, Stop: 42160, Start Num: 7  
Candidate Starts for Maverick\_66:  
(Start: 7 @42357 has 141 MA's), (14, 42300), (21, 42165),

Gene: Maxo\_68 Start: 42359, Stop: 42162, Start Num: 7  
Candidate Starts for Maxo\_68:  
(Start: 7 @42359 has 141 MA's), (14, 42302), (21, 42167),

Gene: Mayonnaise\_64 Start: 42357, Stop: 42160, Start Num: 7  
Candidate Starts for Mayonnaise\_64:

(Start: 7 @42357 has 141 MA's), (14, 42300), (21, 42165),

Gene: Mazhar510\_67 Start: 42358, Stop: 42161, Start Num: 7

Candidate Starts for Mazhar510\_67:

(Start: 7 @42358 has 141 MA's), (14, 42301), (21, 42166),

Gene: Medusa\_67 Start: 42371, Stop: 42174, Start Num: 7

Candidate Starts for Medusa\_67:

(Start: 7 @42371 has 141 MA's), (14, 42314), (21, 42179),

Gene: MeeZee\_66 Start: 42354, Stop: 42157, Start Num: 7

Candidate Starts for MeeZee\_66:

(Start: 7 @42354 has 141 MA's), (14, 42297), (21, 42162),

Gene: Melvin\_69 Start: 42352, Stop: 42155, Start Num: 7

Candidate Starts for Melvin\_69:

(Start: 7 @42352 has 141 MA's), (14, 42295), (21, 42160),

Gene: Millski\_66 Start: 42358, Stop: 42161, Start Num: 7

Candidate Starts for Millski\_66:

(Start: 7 @42358 has 141 MA's), (14, 42301), (21, 42166),

Gene: Miramae\_66 Start: 42179, Stop: 41955, Start Num: 7

Candidate Starts for Miramae\_66:

(Start: 7 @42179 has 141 MA's), (14, 42122), (15, 42116), (21, 41960),

Gene: Morpher26\_66 Start: 42654, Stop: 42430, Start Num: 7

Candidate Starts for Morpher26\_66:

(Start: 7 @42654 has 141 MA's), (14, 42597), (15, 42591), (16, 42540), (21, 42435),

Gene: Morrow\_68 Start: 42399, Stop: 42175, Start Num: 7

Candidate Starts for Morrow\_68:

(Start: 7 @42399 has 141 MA's), (14, 42342), (15, 42336), (21, 42180),

Gene: Mundrea\_66 Start: 42647, Stop: 42423, Start Num: 7

Candidate Starts for Mundrea\_66:

(Start: 7 @42647 has 141 MA's), (14, 42590), (15, 42584), (16, 42533), (21, 42428),

Gene: Naji\_75 Start: 44004, Stop: 43762, Start Num: 5

Candidate Starts for Naji\_75:

(Start: 5 @44004 has 13 MA's), (10, 43950), (13, 43926),

Gene: Nebs\_68 Start: 42396, Stop: 42172, Start Num: 7

Candidate Starts for Nebs\_68:

(Start: 7 @42396 has 141 MA's), (14, 42339), (15, 42333), (21, 42177),

Gene: Nemo27\_66 Start: 42356, Stop: 42159, Start Num: 7

Candidate Starts for Nemo27\_66:

(Start: 7 @42356 has 141 MA's), (14, 42299), (21, 42164),

Gene: Noelle\_67 Start: 42962, Stop: 42738, Start Num: 7

Candidate Starts for Noelle\_67:

(Start: 7 @42962 has 141 MA's), (14, 42905), (15, 42899), (20, 42788), (21, 42743),

Gene: NorthStar\_65 Start: 42357, Stop: 42160, Start Num: 7  
Candidate Starts for NorthStar\_65:  
(Start: 7 @42357 has 141 MA's), (14, 42300), (21, 42165),

Gene: NotAPhaseMom\_66 Start: 42361, Stop: 42164, Start Num: 7  
Candidate Starts for NotAPhaseMom\_66:  
(Start: 7 @42361 has 141 MA's), (14, 42304), (21, 42169),

Gene: Nyxis\_66 Start: 42247, Stop: 42050, Start Num: 7  
Candidate Starts for Nyxis\_66:  
(Start: 7 @42247 has 141 MA's), (14, 42190), (21, 42055),

Gene: OKCentral2016\_65 Start: 41306, Stop: 41055, Start Num: 2  
Candidate Starts for OKCentral2016\_65:  
(Start: 2 @41306 has 1 MA's), (4, 41273), (Start: 8 @41249 has 3 MA's), (16, 41153), (20, 41105),

Gene: OKaNui\_66 Start: 42407, Stop: 42210, Start Num: 7  
Candidate Starts for OKaNui\_66:  
(Start: 7 @42407 has 141 MA's), (14, 42350), (21, 42215),

Gene: Obama12\_68 Start: 42780, Stop: 42556, Start Num: 7  
Candidate Starts for Obama12\_68:  
(Start: 7 @42780 has 141 MA's), (14, 42723), (15, 42717), (21, 42561),

Gene: Ohfah\_68 Start: 42396, Stop: 42172, Start Num: 7  
Candidate Starts for Ohfah\_68:  
(Start: 7 @42396 has 141 MA's), (14, 42339), (15, 42333), (21, 42177),

Gene: Palestino\_66 Start: 42357, Stop: 42160, Start Num: 7  
Candidate Starts for Palestino\_66:  
(Start: 7 @42357 has 141 MA's), (14, 42300), (21, 42165),

Gene: Peaches\_65 Start: 42356, Stop: 42159, Start Num: 7  
Candidate Starts for Peaches\_65:  
(Start: 7 @42356 has 141 MA's), (14, 42299), (21, 42164),

Gene: Perplexer\_66 Start: 42630, Stop: 42406, Start Num: 7  
Candidate Starts for Perplexer\_66:  
(Start: 7 @42630 has 141 MA's), (14, 42573), (15, 42567), (16, 42516), (21, 42411),

Gene: PeterPeter\_67 Start: 42354, Stop: 42157, Start Num: 7  
Candidate Starts for PeterPeter\_67:  
(Start: 7 @42354 has 141 MA's), (14, 42297), (21, 42162),

Gene: PetiteSangsue\_66 Start: 42633, Stop: 42409, Start Num: 7  
Candidate Starts for PetiteSangsue\_66:  
(Start: 7 @42633 has 141 MA's), (14, 42576), (15, 42570), (16, 42519), (21, 42414),

Gene: Phacado\_67 Start: 42356, Stop: 42159, Start Num: 7  
Candidate Starts for Phacado\_67:  
(Start: 7 @42356 has 141 MA's), (14, 42299), (21, 42164),

Gene: Phelipe\_68 Start: 42396, Stop: 42172, Start Num: 7  
Candidate Starts for Phelipe\_68:  
(Start: 7 @42396 has 141 MA's), (14, 42339), (15, 42333), (21, 42177),

Gene: Phighter1804\_67 Start: 42421, Stop: 42224, Start Num: 7  
Candidate Starts for Phighter1804\_67:  
(Start: 7 @42421 has 141 MA's), (14, 42364), (21, 42229),

Gene: Phontbonne\_67 Start: 42263, Stop: 42066, Start Num: 7  
Candidate Starts for Phontbonne\_67:  
(Start: 7 @42263 has 141 MA's), (14, 42206), (21, 42071),

Gene: Pipcraft\_64 Start: 42357, Stop: 42160, Start Num: 7  
Candidate Starts for Pipcraft\_64:  
(Start: 7 @42357 has 141 MA's), (14, 42300), (21, 42165),

Gene: Polymorphads\_67 Start: 42377, Stop: 42153, Start Num: 7  
Candidate Starts for Polymorphads\_67:  
(Start: 7 @42377 has 141 MA's), (14, 42320), (15, 42314), (21, 42158),

Gene: Pomar16\_75 Start: 44044, Stop: 43802, Start Num: 5  
Candidate Starts for Pomar16\_75:  
(Start: 5 @44044 has 13 MA's), (10, 43990), (13, 43966),

Gene: Pumbaa\_67 Start: 42302, Stop: 42105, Start Num: 7  
Candidate Starts for Pumbaa\_67:  
(Start: 7 @42302 has 141 MA's), (14, 42245), (21, 42110),

Gene: Relief\_66 Start: 42354, Stop: 42157, Start Num: 7  
Candidate Starts for Relief\_66:  
(Start: 7 @42354 has 141 MA's), (14, 42297), (21, 42162),

Gene: RhynO\_66 Start: 41808, Stop: 41539, Start Num: 3  
Candidate Starts for RhynO\_66:  
(Start: 3 @41808 has 1 MA's), (6, 41775), (9, 41757), (15, 41700), (20, 41589),

Gene: RockieBear\_64 Start: 42357, Stop: 42160, Start Num: 7  
Candidate Starts for RockieBear\_64:  
(Start: 7 @42357 has 141 MA's), (14, 42300), (21, 42165),

Gene: Romney\_66 Start: 42354, Stop: 42157, Start Num: 7  
Candidate Starts for Romney\_66:  
(Start: 7 @42354 has 141 MA's), (14, 42297), (21, 42162),

Gene: Roosevelt\_65 Start: 42359, Stop: 42162, Start Num: 7  
Candidate Starts for Roosevelt\_65:  
(Start: 7 @42359 has 141 MA's), (14, 42302), (21, 42167),

Gene: Rosa24\_64 Start: 42388, Stop: 42191, Start Num: 7  
Candidate Starts for Rosa24\_64:  
(Start: 7 @42388 has 141 MA's), (14, 42331), (21, 42196),

Gene: Ruin\_67 Start: 42350, Stop: 42153, Start Num: 7

Candidate Starts for Ruin\_67:

(Start: 7 @42350 has 141 MA's), (14, 42293), (21, 42158),

Gene: Sabertooth\_67 Start: 42359, Stop: 42162, Start Num: 7

Candidate Starts for Sabertooth\_67:

(Start: 7 @42359 has 141 MA's), (14, 42302), (21, 42167),

Gene: Scamp\_67 Start: 42359, Stop: 42162, Start Num: 7

Candidate Starts for Scamp\_67:

(Start: 7 @42359 has 141 MA's), (14, 42302), (21, 42167),

Gene: SenorClean\_68 Start: 42357, Stop: 42160, Start Num: 7

Candidate Starts for SenorClean\_68:

(Start: 7 @42357 has 141 MA's), (14, 42300), (21, 42165),

Gene: Shaka\_65 Start: 42354, Stop: 42157, Start Num: 7

Candidate Starts for Shaka\_65:

(Start: 7 @42354 has 141 MA's), (14, 42297), (21, 42162),

Gene: SheldonCooper\_67 Start: 42797, Stop: 42573, Start Num: 7

Candidate Starts for SheldonCooper\_67:

(Start: 7 @42797 has 141 MA's), (14, 42740), (15, 42734), (21, 42578),

Gene: Shygu2\_66 Start: 42684, Stop: 42460, Start Num: 7

Candidate Starts for Shygu2\_66:

(Start: 7 @42684 has 141 MA's), (14, 42627), (15, 42621), (21, 42465),

Gene: Skipitt\_66 Start: 42351, Stop: 42154, Start Num: 7

Candidate Starts for Skipitt\_66:

(Start: 7 @42351 has 141 MA's), (14, 42294), (21, 42159),

Gene: Sparxx\_68 Start: 42352, Stop: 42155, Start Num: 7

Candidate Starts for Sparxx\_68:

(Start: 7 @42352 has 141 MA's), (14, 42295), (21, 42160),

Gene: Spino\_66 Start: 42360, Stop: 42163, Start Num: 7

Candidate Starts for Spino\_66:

(Start: 7 @42360 has 141 MA's), (14, 42303), (21, 42168),

Gene: StarStuff\_75 Start: 44006, Stop: 43764, Start Num: 5

Candidate Starts for StarStuff\_75:

(Start: 5 @44006 has 13 MA's), (10, 43952), (13, 43928),

Gene: Stasia\_66 Start: 42567, Stop: 42343, Start Num: 7

Candidate Starts for Stasia\_66:

(Start: 7 @42567 has 141 MA's), (14, 42510), (15, 42504), (20, 42393), (21, 42348),

Gene: SteMason\_63 Start: 42354, Stop: 42157, Start Num: 7

Candidate Starts for SteMason\_63:

(Start: 7 @42354 has 141 MA's), (14, 42297), (21, 42162),

Gene: Stink\_66 Start: 42459, Stop: 42235, Start Num: 7

Candidate Starts for Stink\_66:

(Start: 7 @42459 has 141 MA's), (14, 42402), (15, 42396), (21, 42240),

Gene: Sultana\_67 Start: 42357, Stop: 42160, Start Num: 7

Candidate Starts for Sultana\_67:

(Start: 7 @42357 has 141 MA's), (14, 42300), (21, 42165),

Gene: Taquarus\_66 Start: 42360, Stop: 42163, Start Num: 7

Candidate Starts for Taquarus\_66:

(Start: 7 @42360 has 141 MA's), (14, 42303), (21, 42168),

Gene: Thanksgivukkah\_66 Start: 42355, Stop: 42158, Start Num: 7

Candidate Starts for Thanksgivukkah\_66:

(Start: 7 @42355 has 141 MA's), (14, 42298), (17, 42244), (21, 42163),

Gene: TinaFeyge\_65 Start: 42352, Stop: 42155, Start Num: 7

Candidate Starts for TinaFeyge\_65:

(Start: 7 @42352 has 141 MA's), (14, 42295), (21, 42160),

Gene: Tinybot\_66 Start: 42387, Stop: 42190, Start Num: 7

Candidate Starts for Tinybot\_66:

(Start: 7 @42387 has 141 MA's), (14, 42330), (21, 42195),

Gene: TipsytheTRex\_72 Start: 43101, Stop: 42820, Start Num: 1

Candidate Starts for TipsytheTRex\_72:

(Start: 1 @43101 has 3 MA's), (10, 43008), (11, 43002), (13, 42984), (20, 42873),

Gene: TiroTheta9\_66 Start: 42351, Stop: 42154, Start Num: 7

Candidate Starts for TiroTheta9\_66:

(Start: 7 @42351 has 141 MA's), (14, 42294), (21, 42159),

Gene: Tomathan\_75 Start: 44117, Stop: 43875, Start Num: 5

Candidate Starts for Tomathan\_75:

(Start: 5 @44117 has 13 MA's), (10, 44063), (13, 44039),

Gene: Travvers\_74 Start: 44003, Stop: 43761, Start Num: 5

Candidate Starts for Travvers\_74:

(Start: 5 @44003 has 13 MA's), (10, 43949), (13, 43925),

Gene: TroyPia\_68 Start: 42391, Stop: 42167, Start Num: 7

Candidate Starts for TroyPia\_68:

(Start: 7 @42391 has 141 MA's), (14, 42334), (15, 42328), (21, 42172),

Gene: TygerBlood\_67 Start: 42357, Stop: 42160, Start Num: 7

Candidate Starts for TygerBlood\_67:

(Start: 7 @42357 has 141 MA's), (14, 42300), (21, 42165),

Gene: Ulysses\_66 Start: 42043, Stop: 41846, Start Num: 7

Candidate Starts for Ulysses\_66:

(Start: 7 @42043 has 141 MA's), (14, 41986), (21, 41851),

Gene: VC3\_74 Start: 43459, Stop: 43217, Start Num: 5

Candidate Starts for VC3\_74:

(Start: 5 @43459 has 13 MA's), (10, 43405), (13, 43381), (19, 43273),

Gene: Wander\_67 Start: 42354, Stop: 42157, Start Num: 7  
Candidate Starts for Wander\_67:  
(Start: 7 @42354 has 141 MA's), (14, 42297), (21, 42162),

Gene: Wilbur\_67 Start: 42354, Stop: 42157, Start Num: 7  
Candidate Starts for Wilbur\_67:  
(Start: 7 @42354 has 141 MA's), (14, 42297), (21, 42162),

Gene: Wile\_65 Start: 42663, Stop: 42439, Start Num: 7  
Candidate Starts for Wile\_65:  
(Start: 7 @42663 has 141 MA's), (14, 42606), (15, 42600), (16, 42549), (21, 42444),

Gene: Wizard007\_66 Start: 42389, Stop: 42165, Start Num: 7  
Candidate Starts for Wizard007\_66:  
(Start: 7 @42389 has 141 MA's), (14, 42332), (15, 42326), (16, 42275), (21, 42170),

Gene: Xena\_65 Start: 42630, Stop: 42406, Start Num: 7  
Candidate Starts for Xena\_65:  
(Start: 7 @42630 has 141 MA's), (14, 42573), (15, 42567), (16, 42516), (21, 42411),

Gene: YoSam321\_67 Start: 42351, Stop: 42154, Start Num: 7  
Candidate Starts for YoSam321\_67:  
(Start: 7 @42351 has 141 MA's), (14, 42294), (21, 42159),